

Commerce General Architecture

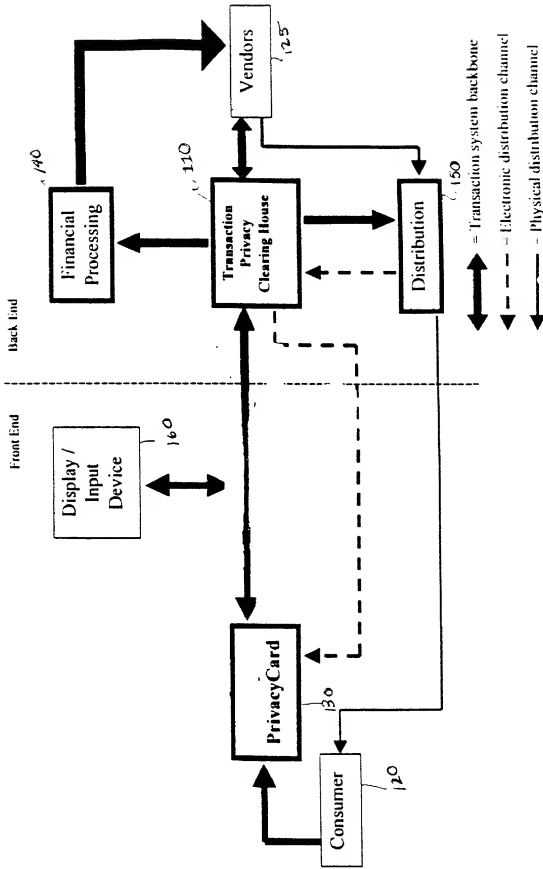


Fig 1

Commerce General Architecture - POS Terminal:

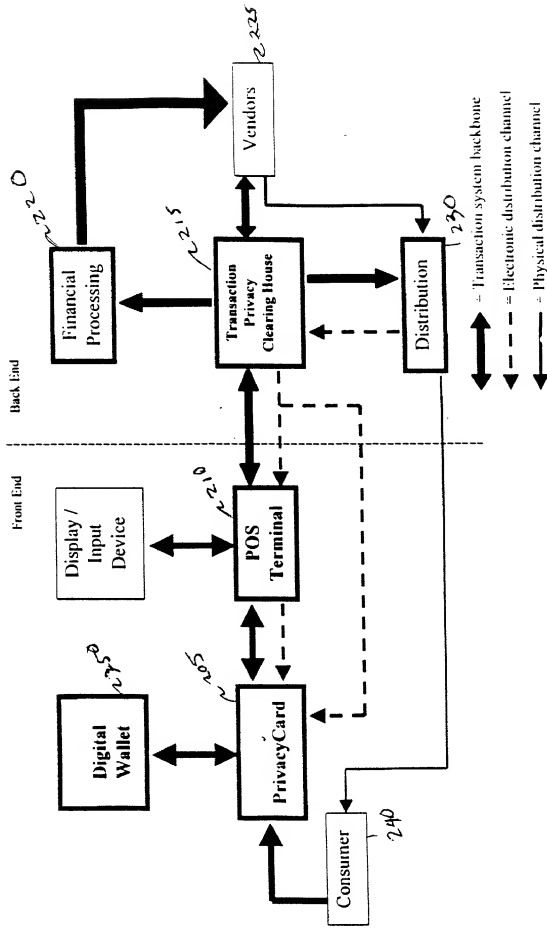


Fig. 2

Commerce In-Home Environment

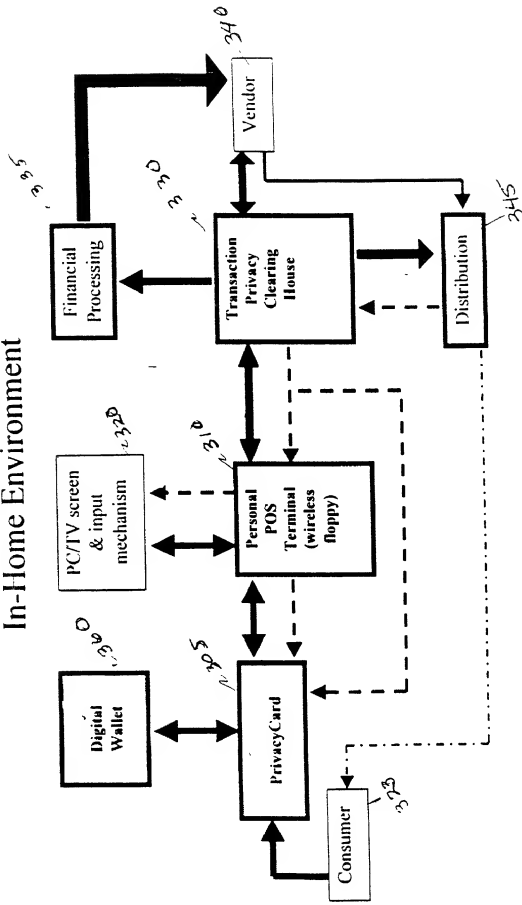


Fig 3

In-Store Retail Environment

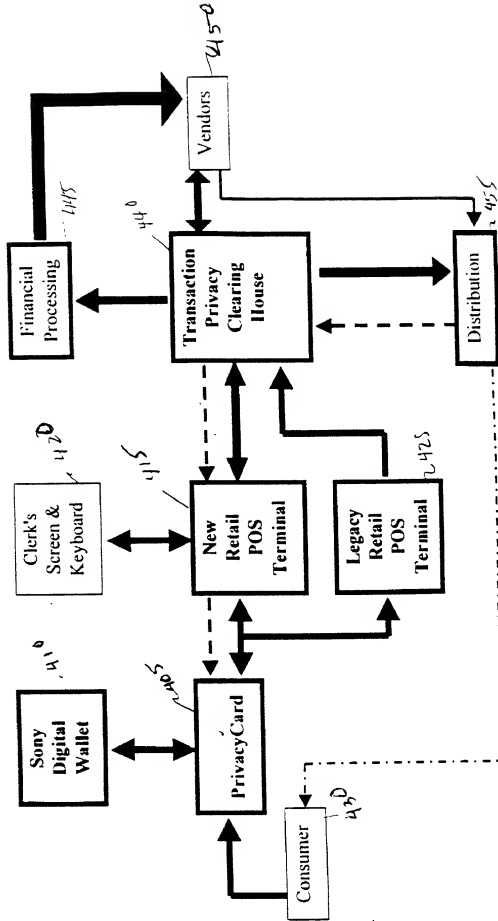


Fig 4

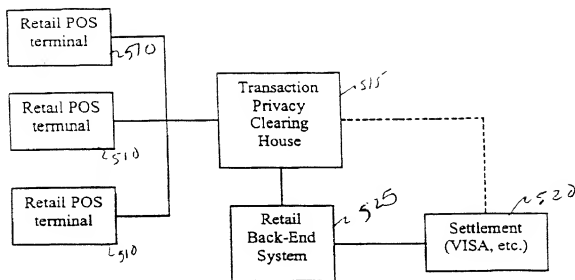


Diagram 5a: A retail system modified to support the interaction of legacy POS terminals with the Digital Wallet system

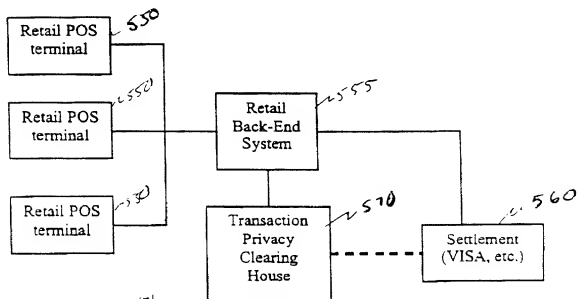
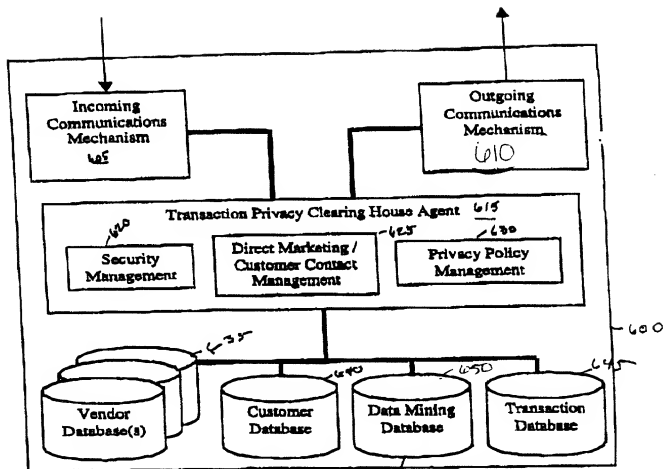
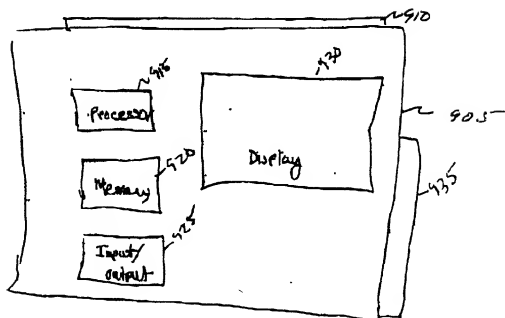
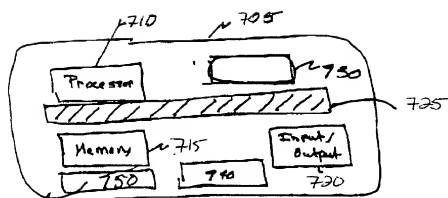


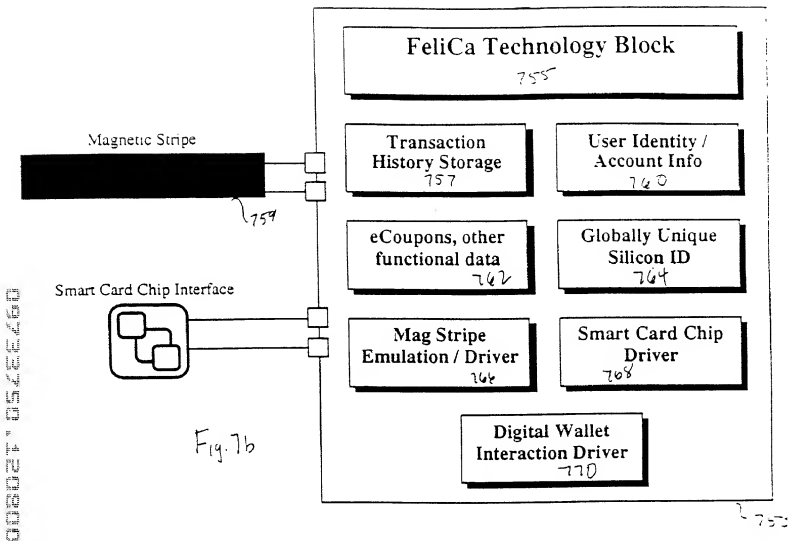
Diagram 5b: An alternative embodiment of the retail system modified to support the interaction of legacy POS terminals with the Digital Wallet system

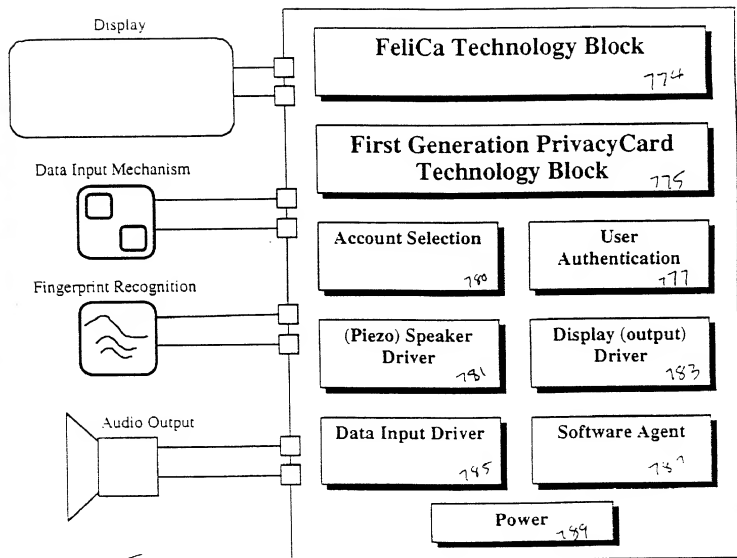


Transaction Privacy Clearing House: Major Components

Fig. 6







09733750.120800

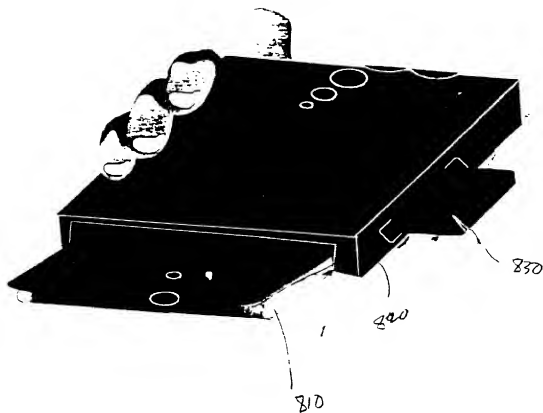


Fig 8

a

Digital Wallet and
Privacy Card

Digital Wallet

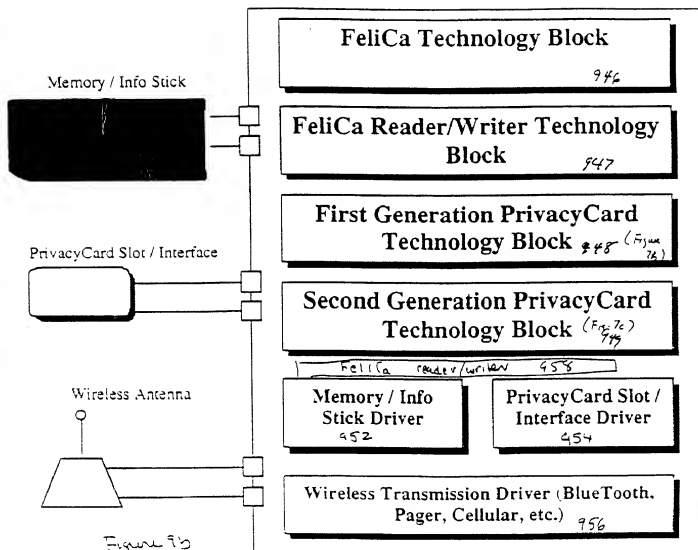


Figure 75

09733750-120800

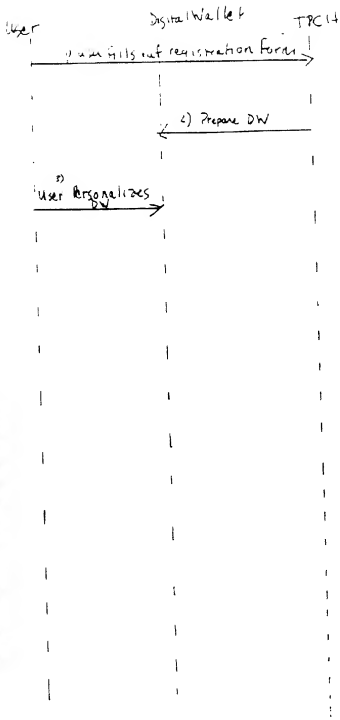


Fig 13

Setup of Digital
wallet

```

sequenceDiagram
    participant User
    participant Digital Wallet
    participant Laptop PC
    participant TPCH

    User->>Laptop PC: 1) submit electronic registration, provide fingerprint
    Laptop PC->>TPCH: 1102) encrypt & deliver fingerprint sample + registration
    TPCH->>Digital Wallet: 1103) initialize DW device, deliver to user
    Digital Wallet->>User: 1104) activate & verify delivery, user
    User->>TPCH: 1105) confirm successful delivery, user
    TPCH->>Digital Wallet: 1106) enabled for use
    Digital Wallet->>User: 1107) display ready message
  
```

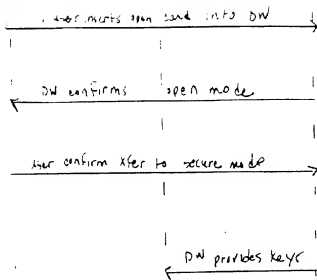
Digital Wallet Setup .
(Airmark Embedment)

Host

20

Digital Wallet

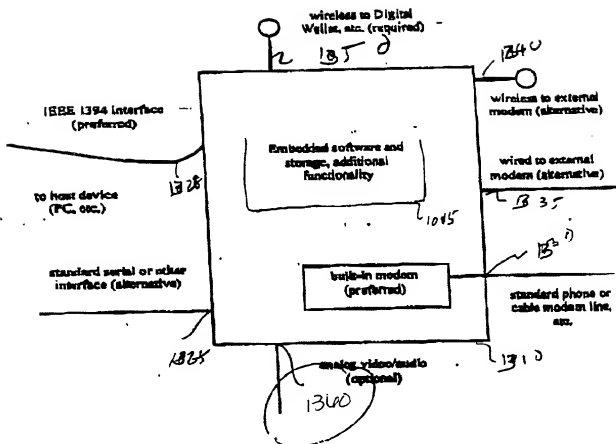
IPCL1



09733750, 120800

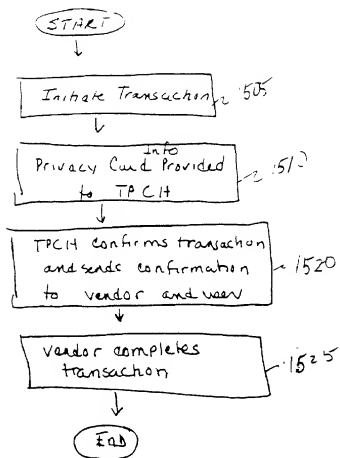
Fig 12

conversion of card to secure



POS Terminal

Fig 14



Initiate Transaction 505

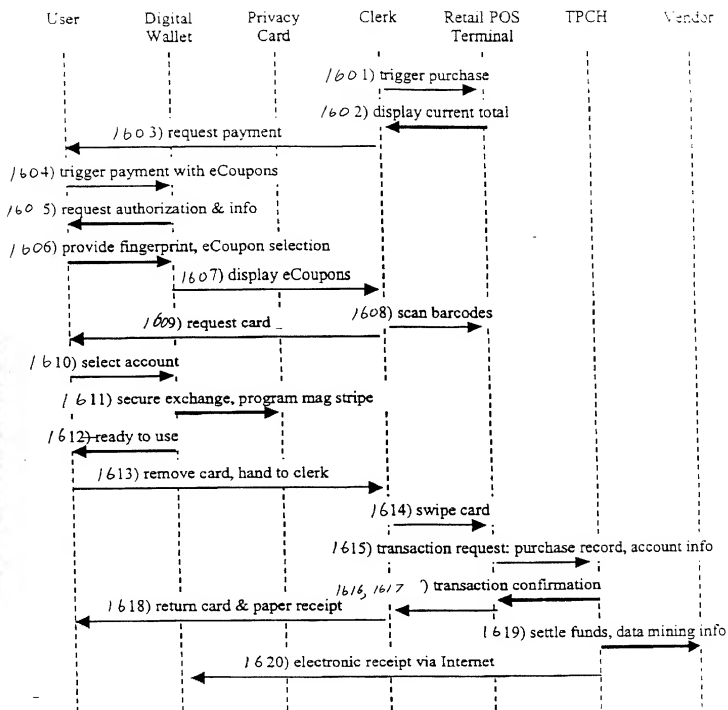
Privacy Cund ^{Info} Provided to TPCH 2:51

TPC14 confirms transaction and sends confirmation to vendor and user - 1520

Vendor completes transaction - 1525

En

Fig. 15



Retail Transaction

000021 05422260

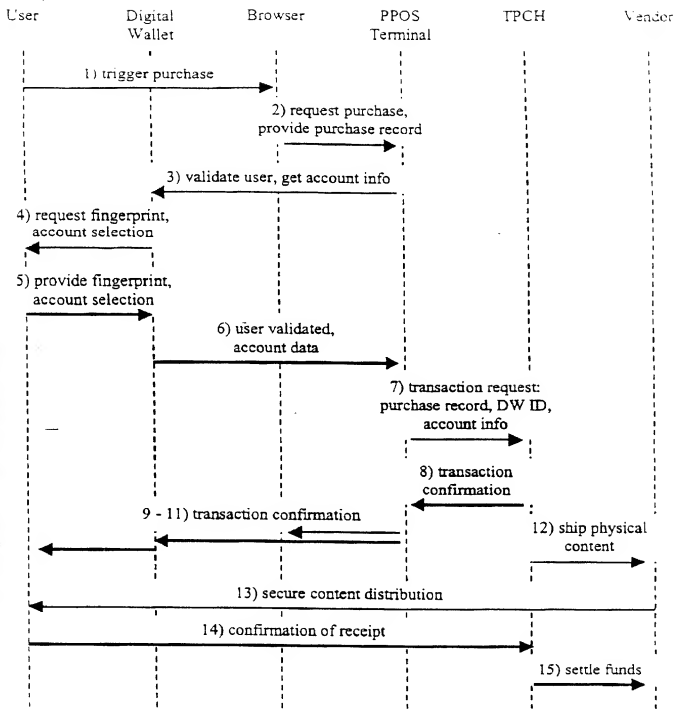


Fig. 17

Web Transaction


```

sequenceDiagram
    participant User
    participant Digital Wallet
    participant TPC/H
    participant Vendor
    participant Distributor
    participant Package

    User->>Package: 1901) repackage material
    User->>Digital Wallet: 1902) activate, select Return Package
    Digital Wallet->>Package: 1903) apply coded label with package_ID, vendor_address
    Digital Wallet->>Vendor: 1904) contact vendor, distributor for return
    Digital Wallet->>Distributor: 1904) contact vendor, distributor for return
    Distributor->>Package: 1905) pick up, decode label for package_ID, vendor_address
    Package->>Vendor: 1906) deliver to vendor
  
```

Return of Product

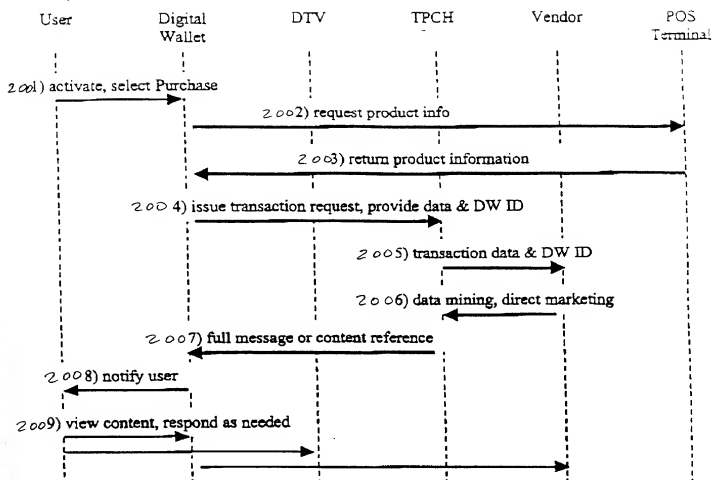


Fig 20

Data Mining

FIG. 21

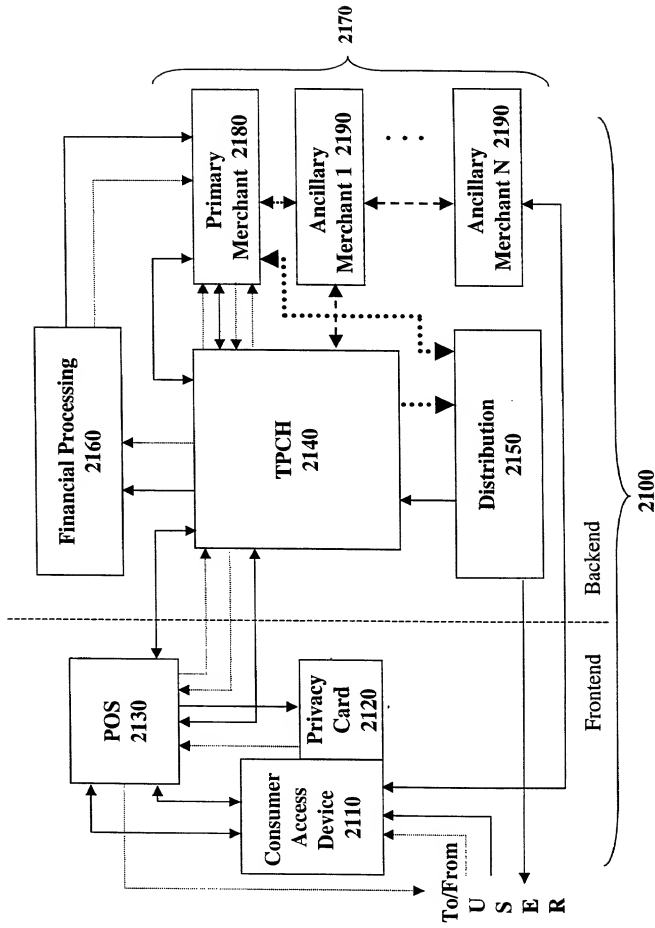


FIG. 22A

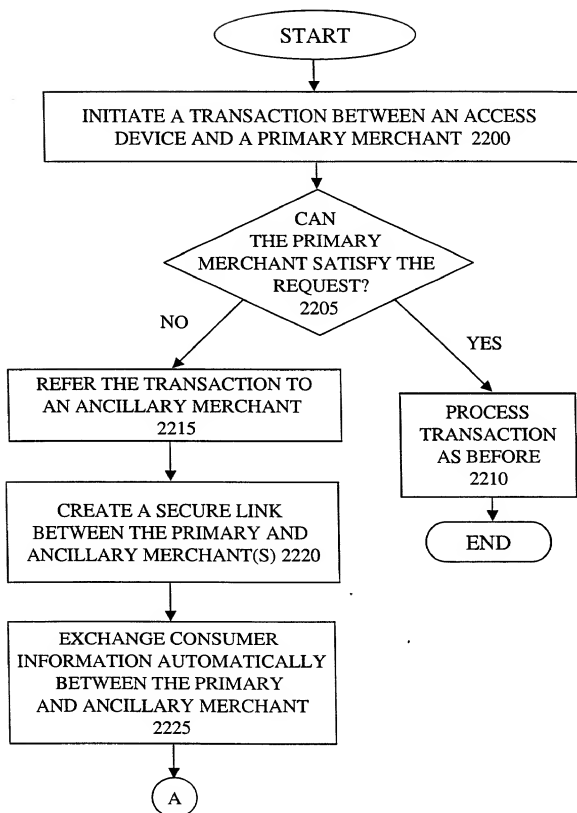


FIG. 22B

